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RESEARCH

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Characterization of service of a pre-hospital care service to older persons involved in fall

Caracterização do atendimento de um serviço pré-hospitalar a idosos envolvidos em queda*

Characterization llamada de un servicio prehospitalario mayores participan en caída

Thainara Araujo Franklin[1]; Hemilena Carmo da Silva Santos[2]; Julival Andrade Santos Junior[3]; Alba Benemérita Alves Vilela[4]

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ABSTRACT

Objective: To analyze the SAMU service characteristics of the elderly involved in fall in 2013. **Methods:** This is a descriptive, retrospective study, document analysis with a quantitative approach, developed in the SAMU in the city of Jequié/BA. **Results:** The sample consisted of 183 elderly fall victims, aged from 60 years, with increased number of falls in women 68.3%, while men were 32.7%, most falls occurred from the person's height, corresponding to 85.8%, as for age, the elderly aged 80 or more suffer more falls - 43.7%. **Conclusion:** The results point to a need for further research for the pre-hospital services in relation to senior care.

Descriptors: Elderly, Falls, Health of the Elderly, Assistance, Pre-hospital.

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[1] Nurse. Master's Degree in Nursing and Health by the Graduate Program in Nursing and Health of the State University of the Southwest of Bahia/UESB.Jequié (BA), Brazil. Email: thainarafranklin@hotmail.com.

[2] Nurse, by State University of Southwest of Bahia/UESB. Jequié (BA), Brazil. Email: hemilla3@yahoo.com.br.

[3] Doctor. Assistant Professor of the Department of Health I, State University of Southwest Bahia/UESB. Jequié (BA), Brazil. Email: jasjunior@uesb.edu.br.

[4] Nurse. Professor, Graduate/StrictoSensu Postgraduate Program in Nursing and Health, State University of the Southwest of Bahia / UESB.Jequié (BA), Brazil. Email: alba_vilela@hotmail.com.

RESUMO

Objetivo: Analisar as características do atendimento do SAMU aos idosos envolvidos em queda no ano de 2013. **Métodos:** Este é um estudo descritivo, retrospectivo, de análise documental, com abordagem quantitativa, desenvolvido no SAMU na cidade de Jequié/BA. **Resultados:** A amostra foi constituída por 183 idosos vítimas de queda, com idades a partir de 60 anos, com maior número de quedas nas mulheres 68,3%, enquanto nos homens foram 32,7%, a maioria das quedas ocorreu da própria altura, correspondendo a 85,8%,e quanto à idade, os idosos com 80 anos ou mais sofreram mais quedas - 43,7%. **Conclusão:** Os resultados apontam para uma necessidade de novas pesquisas referentes ao serviço pré-hospitalar com relação ao atendimento ao idoso.

Descritores: Idosos, Quedas, Saúde do idoso, Assistência, Pré-hospitalar.

RESUMEN

Objetivo: Analizar las características Del servicio samu de las personas mayores que participan em caída en 2013. **Métodos:** Este estúdio retrospectivo descriptivo, análisis de documentos con um enfoque cuantitativo, desarrollado en el samu en la ciudad de Jequié-Ba. **Resultados:** La muestra fue de 183 víctimas de la caída de edad avanzada, con edades de 60 años, aumento del número de caídas em mujeres 68,3%, mientras que los hombres eran el 32,7%, la mayoría de las caídas se produjeron desde la altura, que corresponde al 85,8%, encuanto a la edad, las personas mayores de 80 años o más sufren más caídas del 43,7%. **Conclusión:** Los resultados apuntan a la necesidad de una mayor investigación para los servicios pre-hospitalarios em relación con el cuidado de ancianos.

Descriptores: Los Ancianos; Caídas; Salud del Adulto Mayor; Asistencia; Pré-hospitalaria.

INTRODUCTION

The risk of falls in the elderly is one of the serious problems of public health due to the high prevalence, complications and high costs for the health services. In view of this situation, on December 20, 2007, the Ministry of Health established an Advisory Committee for Prevention of Osteoporosis and Falls in Elderly Persons, with the purpose of supporting the public policies related to the issue of falls in the elderly.[1]

In Brazil, a person aged 60 or older is considered elderly, according to the National Policy for the Elderly (PNI), Law 8,842 / 942, and the Statute of the Elderly, Law 10741/03[3]. The National Policy on the Health of the Elderly Person (PNSPI) of (Ordinance No. 2,528, of October 19, 2006)[4]Has as its primary objective the recovery, maintenance and promotion of the autonomy and independence of the elderly person, directing collective and individual health measures for this purpose, in accordance with the principles and guidelines of the Unified Health System. Brazilian citizens 60 years of age or older.[5]

With advancing age, there is a decrease in the efficiency of sensory systems (vestibular, visual, somatosensory). This alteration, associated with the lack of capacity to select sensory information of great importance, may be responsible for the increase of the body oscillation and imbalances in the elderly, contributing to the occurrence of fall.[6]

The balance is the result of the harmonious interaction of different systems of the human body: vestibular, visual, somatosensory and musculoskeletal systems. Each system has components that, with the aging process, can suffer functional losses that hamper the functioning and the execution of the motor response responsible for the maintenance of control of posture and body balance. Posture is a dynamic state resulting from the functioning of the sensory and motor systems acting together to achieve functional action. In order to perform most of the motor actions, humans need a postural control, in which without the appropriate level it becomes difficult to perform a simple task, such as walking.[7]

Falls occur as a result of a complex interaction of risk factors that can be classified into biological, such as age, gender and race, associated with changes due to aging;In behavioral risk factors, those that relate to human actions, emotions and daily activities and are potentially modifiable; Environmental risk factors that include the interaction of individuals' physical conditions and those of the surrounding environment; And socioeconomic risk factors such as work/income inequalities, education, housing without basic sanitation, limited access to health care and social assistance in priority areas, and lack of community resources.[8]

Falls in the elderly are relevant in national statistics, since they ranked third in all external causes in 2007 and the first place in hospitalizations in the elderly population in 2008, both for men (15.7/100,000) and for women (12.5/100,000), with a coefficient of 14.0/100,000.[9]

In the care of the trauma patient, among the various causes, are falling due to several factors. Most of these are accidental and occur indoors or in your surroundings, usually during the performance of everyday activities such as walking, changing positions, and going to the bathroom.[5]

Falling causes consequences such as decreased quality of life, fear of walking and loss of ability to perform daily tasks, being one of the main causes of hospitalization and death in geriatrics.[10]

The elderly population becomes more vulnerable to health problems and has an urgent need in the emergency services. Of note among other health services is the Mobile Emergency Care Service (SAMU), which has an impact on the reduction of hospitalizations and deaths from certain health problems.[11]

Public health policies have the objective of ensuring care for the entire population through actions to promote, protect and recover health, guaranteeing integrality of care, meeting the different realities and health needs of the population and individuals[1]. Within these policies is emergency mobile service- SAMU 192.

The main purpose of the emergency and emergency policy[12] is to provide the clinical, surgical, traumatic,

obstetrical and psychiatric patients with fast and effective access to health care through the Unified Health System. It is also relevant in this population of more than 60 Years due to the higher prevalence of morbidity and mortality associated with their physical condition.

The SAMU can favor the organization of attention networks, since it requires a structural observance of the regulatory centers, resulting in strategies of assistance regulation in other areas of health. [13]Having its principles of urgency and emergency in line with the PNI. The Statute of the Elderly provides the necessary guarantees for integrated care and meeting the minimum criteria to meet the needs of this population.

Among the various types of care provided by SAMU, is the care for the elderly victims of falls. As a result, this study seeks to identify the characteristics of the prehospital care services to the elderly involved in the fall.

This work may contribute to the reflection and intervention of health professionals as well as undergraduate students in the health area on the need for new ways of thinking and doing, actions directed at the health of the elderly, considering the national panorama of the aging population.

In view of the above, this study aimed to analyze the characteristics of SAMU care for the elderly involved in a fall in the year 2013 in a municipality in the interior of Bahia.

METHODS

This is a descriptive, retrospective study of documental analysis, with a quantitative approach, developed at SAMU, located in the city of Jequié/BA, located in the southwest region of the state. SAMU Regional covers 25 municipalities around Jequié and together has a population of approximately 530,000 inhabitants. Of these 25 municipalities, 15 have rescue ambulances covering the entire region. In order to perform prehospital care, the use of vehicles with their specific crew, the USA (Advanced Support Unit) manned by 01 interventionist physician, 01 nurse and a driver/rescuer and USB (Basic Support Unit) are required. Manned by a nursing technician and a driver/rescuer.

The sample of this study comes from the SAMU Regional database of Jequié, which has the information coming from data sheets of the medical regulation center and the mobile units in the year 2013. We analyzed the care for the elderly with 60 or more years, victims of falls.

The data were collected in March 2016 through the SAMU database and archived in Excel. Of the total of 2066 consultations registered in the year of 2013, the population of patients with attendance related to the fall was 183 elderly people.

The study included variables according to sociodemographic characterization, such as: gender; age group; service information: location, shift, day, month; type of service: type of drop and way/vehicle sent to the service.

The rescued data were analyzed and presented in the table for appreciation. For the analysis of the data of the present research the Statistical Package for the Social Sciences (SPSS®), version 21.0 for Windows® was used, through which the variables of the study in relative and absolute frequencies of each category of variables.

Regarding ethical and legal aspects, this study was in compliance with Resolution No. 466/12 of the National Health Council (CNS) and was submitted to the Research Ethics Committee of the State University of Southwest of Bahia (UESB) under CAAE 39472214.3.0000.0055, being approved and released for data collection.

RESULTS AND DISCUSSION

The sample consisted of 183 elderly victims of falls attended by the regional SAMU-192 of Jequié, in the year of 2013, resident of this same city, with ages from 60 years, being the total of attendances to the elderly of this same year, in the The city of Jequié was 2066 and the prevalence of falls among the elderly was 8%, totaling 183 elderly individuals. Significantly higher in females 68.3%, while in males they were 32.7%.The majority of falls occurred from the same height, corresponding to 85.8%, but we found other types of falls such as: fall of the stairs 4.9%, fall of the bed 4.4%, fall of height of more than 3 meters 3, 3%, and chair fall 1.3%. The most frequent places of occurrence of falls were: in residence with 74.3% and in public way with 21.3%. As for age, the elderly with 80 years or more suffered more falls 43.7%. And the highest number of falls occurred on weekdays 72.7%, on morning shifts 35.5% and afternoon shifts 41%. The majority of these happened in the month of July 15.8%. The most used means of transportation was USB, with 85.2%. The frequencies of the studied variables of SAMU care for the elderly are detailed in table 01.

The recognition of the characteristics of SAMU care to the elderly involved in the fall makes possible the development of strategies for this type of occurrence.

In this research, we found that 8% of the SAMU services were given to elderly victims of falls for 12 months. In Brazil, 30% of the elderly fall at least once a year, which is a problem of great proportions, especially considering that this population is growing rapidly.[14]

We noticed in the present research that more care was given to the elderly with the more advanced age groups, 43.7% with age above 80 years. Authors confirm that older adults fall more and are more subject to traumatic and clinical acute injuries when compared proportionally to other age groups.[15,8]

We found 68.3% of women's care, which coincides with some studies, in which the percentage of women among the subjects was greater than 70%, demonstrating how much falls are factors of concern for this gender. This may be due to the inherent fact of increased bone fragility in women. [8,10]

In one of the studies,[15] the attendance schedule shows a peak around 10 o'clock, followed by a plateau that lasts until

Table 1 – Characteristics of the Mobile Emergency Care Service (SAMU) to elderly people involved in falls in the year 2013.Jequié-BA, 2016

Variables	(n) %
Gender	
Male	(68) 32.7
Female	(115) 68.3
Age	
60-69	(48) 26.2
70-79	(55) 30.1
≥80	(80) 43.7
Day oftheweek	
Workingdays	(133) 72.7
Endoftheweek	(50) 27.3
Month	
January	(8) 4.4
February	(13) 7.1
March	(9) 4.9
April	(18) 9.8
May	(17) 9.3
June	(19) 10.4
July	(29) 15.8
August	(18) 9.8
September	(24) 13.1
October	(10) 5.5
November	(10) 5.5
December	(8) 4.4
Shift	
Morning	(65) 35.5
Afternoon	(75) 41
Night	(36) 19.7
Dawn	(7) 3.8
Type of Fall	
Fall from own height	(157) 85.8
Fall of the ladder	(9) 4.9
Bed fall	(8) 4.4
Fall of the chair	(3) 1.6
Fall of more than 3 meters	(6) 3.3
Local	
Residence	(136) 74.3
Publichighway	(39)21.3
Others	(1) 5
Way/Vehicle sent to service	
USA	(27) 14.8
USB I/II	(156) 85.2

Source: SAMU (Files), Jequié-BA, 2016.

20 o'clock. It is observed agreement with the period of greatest activity, which corroborates with the data found, in which the highest number of falls occurred on working days 72.7%, on the morning shifts 35.5% and afternoon shifts 41%. The study[9] corroborates in their study that the falls were more frequent during the days of the week 73,8%.

The present study evidenced that there is a relationship between the winter season and falls, in which 15.8% occurred in the month of July. These results are strengthened by the study[8], which states that injuries to the elderly occur mostly during the cooler months between June and September. Since Jequié is a city with high temperatures, during the year of 2013 it was observed by the chart of the site CLIMATE that in the months of June to September the temperatures reached less than 20ºc. Cold is an extrinsic risk factor because it increases sensitivity in some cases due to thyroid malfunction and other associated factors such as exposure to sudden changes in temperature. In the colder months of the year, the elderly people are more compromised, the reflexes are slower to react and protect themselves from the risks.[8]

In figure 01, we can observe the correlation of temperature in the year of 2013 in the city of Jequié/BA and the rate of fall in the elderly.

Regarding the type of fall, those of the height were the most frequent 85.8%, and the place with the highest incidence was in residences 74.3%, which corroborate with the data found in the literature, where 66% Height and 65.8% fell at home. 16 These falls are generally associated with physiological changes that occur in the aging process, such as decreased visual acuity, decreased motor power, difficulty in locomotion, and environmental factors, which indicates that these events are relatively simple, amenable To be reduced with the adoption of preventive measures.

Although the occurrence of a public road crash occurred less frequently than at home, public road conditions (broken and irregular sidewalks, insufficient lighting) may be an important factor in falling, and for that reason, they should receive special attention in public policies.[9]

There is a deficiency in the literature regarding the means of transport used for the occurrences of traumatized elderly people, however in the research we found that USB was responsible for the majority of the attendances, 85.2%, which is in accordance with the urgent care policy.[17]

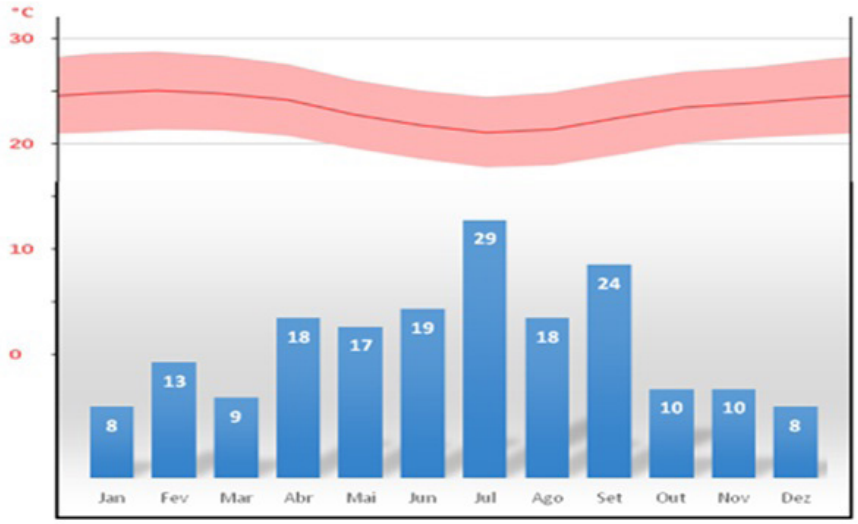
Some studies limit external causes (violence and trauma in general) to the detriment of clinical disorders. The occurrence of fractures is of concern in the elderly population due to their greater difficulty in recovery and vulnerability, as well as the increase in public spending on hospitalization, which keeps the elderly bedridden for long periods, which can result from the appearance of pressure ulcers , Pulmonary complications and even death. In addition, a large portion ends up suffering from disability resulting from this event, thus requiring special care. [15]

CONCLUSION

When analyzing the falls in the elderly who received prehospital care in the year 2013, it was possible to identify some peculiarities, highlighting the greater proportion of falls in women and in the elderly of more advanced age. It was evidenced that there is a significant relationship between the service period in relation to the season and the high fall rate, in which the highest percentage occurred in the winter period, ie in the days of lower temperatures. As for the types of fall and the place, it is observed that the fall of the height and falls of the house had a higher percentage.

In the study, we identified variables that involved prehospital care for the elderly, in which we obtained results that point to a need for new epidemiological research concerning the prehospital service in relation to care for the

Figure 1 – Jequié/BA temperature in 2013 correlated to the monthly fall index found in the study. Jequié/BA, 2016



Source: http://pt.climate-data.org/location/4465/

elderly, basic care actions addressing risk factors for falls And foundation of the public policies of fall prevention in the elderly.

It is hoped that this study can collaborate with knowledge in the collective health area, as well as promote reflections when measures to prevent falls in the elderly, in order to minimize the incidence of these diseases, contributing to an active aging.

REFERENCES

1. Ministério da Saúde. Secretaria de Atenção à Saúde. Departamento de Ações Programáticas e Estratégicas. Atenção à saúde da pessoa idosa e envelhecimento / Ministério da Saúde, Área Técnica Saúde do Idoso. – Brasília, 2010.
2. Ministério da Saúde. Política Nacional do Idoso: Lei 8.842 de 04/01/1994- Brasilia: MPAS, SAS, 1997.
3. Ministério da Saúde. Estatuto do Idoso / Ministério da saúde – 1ª Ed. 2ª Reimpr. – Brasília: Ministério da Saúde, 2003. Cap. IV, Art. 15 e 18.
4. Ministério da Saúde. Portaria nº 2.528, de 19 de outubro de 2006. Aprova a Política Nacional de Saúde da Pessoa Idosa. Diário Oficial da União, 20 out. 2006.
5. Ministério da Saúde. Secretaria de Atenção à Saúde. Departamento de Atenção Básica. Envelhecimento e Saúde da Pessoa Idosa. Brasília: Ministério da Saúde; 2007.
6. Cavalcante ALP, AguiarJB, Gurge LA. Fatores associados a quedas em idosos residentes em um bairro de Fortaleza, Ceará. Ver Bras Geriatr Gerontol. 2012:15(1):137-146
7. Almeida ST, Soldera CLC, Carli GA, Gomes I, Resende TL. Análise de fatores extrínsecos e intrínsecos que predispõem a quedas em idosos. Rev Assoc Med Bras 2012; 58(4):427-433.
8. Caberlon IC, Bós AJG. Diferenças sazonais de quedas e fraturas em idosos gaúchos. Ciê & Saú Col. 2015; 20(12):3743-3752.
9. Meschial WC, Soares DFPP, Oliveira N LB, Nespollo AM, Silva WA, Santil FLP. Idosos vítimas de quedas atendidos por serviços pré-hospitalares: diferenças de gênero. Rev Bras Epidemiol. 2014; 3-16.
10. Rezende CP, Gaede-carrilloMRG, SebastiãECO.Queda entre idosos no Brasil e sua relação com o uso de medicamentos: revisão sistemática. Cad Saúde Pública. 2012;28(12):2223-2235.
11. CastroCL,Junger WL, Cavalni LT. Análise da Atenção Pré-hospitalar ao Acidente Vascular Cerebral e ao Infarto Agudo do Miocárdio na População Idosa. Ver. AssoMéd Bras. 2010; 56 (4): 452-7.
12. Portaria Nº- 1.600, de 7 de julho de 2011. Reformula a Política Nacional de Atenção às Urgências e institui a Rede de Atenção às Urgências no Sistema Único de Saúde (SUS). Publicada no DOU nº 130, seção 1, sexta-feira, 8 de julho de 2011.
13. Machado CV, Salvador FGF. O`dwwyer G. Serviço de Atendimento Móvel de Urgência: Analise da Política Brasileira. RevSaúPúb. 2011; 45 (3): 519 – 28.
14. Almeida LP, Brites MF, Takizawa MGMH. Quedas em idosos: fatores de risco. RBCEH. 2011;8(3):384-391.
15. Gonsaga RAT, *et al.* Padrão e Necessidades de Atendimento Pré-hospitalar a Idosos. Rev bras geriatra Gerontol. 2015; 18(1):19-28.
16. Gawryszewski VP. A importância das quedas no mesmo nível entre idosos no estado de São Paulo. Ver Assoc Med Bras. 2010; 56(2): 162-7.
17. Ministério da Saúde. Secretaria de Atenção à Saúde Departamento de Atenção Especializada. Regulação Médica das Urgências Série A. Normas e Manuais Técnicos Brasília – DF 2006.

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Author responsible for correspondence:
Thainara Araujo Franklin
Rua José Moreira Sobrinho, s/n, Jequiezinho
Jequié/BA, Brazil
ZIP-code: 45206-190